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EXAMINER	
STEELMAN, MARY J	

ART UNIT	PAPER NUMBER
2191	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/601,521

Applicant(s)

KUO ET AL.

Examiner

MARY STEELMAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to Amendments and Remarks received 05/23/2007. Per Applicant's request, claims 1-4, 7-10, and 14-16 have been amended. Claims 1-18 are pending.

Claim Objections

2. Claim 1 (and similarly in claims 7 & 13) is objected to because claim terminology is confusing: "a list of candidate third elements z to be provided to user; wherein said third elements z in said list are selected..." (Does this identify 'a list', comprising a plurality of elements, the plurality of elements identified as z?) "wherein said third elements z in said list are selected..." (Does this mean that one or more elements, such as z1, z2, z3, may be inserted?) "said list enabling the user to select any (select one, or select one or more?) of the third elements and add them to the working document..."

3. Claims 8 & 14 are noncompliant because the formula in line 3 is missing notation between "p N". (See claim 2, line 4.) Notation is not consistent with original claim submission.

Specification

4. The amendment filed 05/23/2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "computer readable medium", as amended in claims 1 and 13.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Original Claims 1-6 and 13-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, software per se. Such software, lacking storage on a suitable computer-readable medium are not able to realize any functionality and are thus not statutory. (See Specification objection above. There is no support in the Specification for the proposed amendment to claims 1 and 13, as related to “computer readable medium”)

7. In view of the amendment to claim 7, the 35 U.S.C. 101 rejection of claims 7-12 is hereby withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3, 9, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. I (with two dots over) Notation is not clearly defined.

9. Claims 5, 7, 11, and 17 recite terms “is effective”, “more easily”. The terms are relative terms which render the claims indefinite. The term “is effective” & “more easily” are not

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defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Response to Arguments

10. Applicant's arguments with respect to claims (obvious combination of Rita and Bruggermann) have been considered but are moot in view of the new grounds of rejection.

As noted on page 10 of Remarks, the purpose of the invention is to facilitate editing of a working XML document, by providing a generated list of elements (candidate elements) that may be added (inserted into an existing series of elements / between a start and end element), without violating the document type definition (DTD). Dependent claims recite specific algorithms used to generate the list of elements.

Applicant argues, on the last paragraph of page 11, that Rita provides no suggestion that the candidate list is based on relations between the candidates and consecutive compliant elements in the document (“...such that relations between elements z_i and z and between elements z and z_{i+1} comply with said DTD...”).

Examiner disagrees. Rita, (page 135, last paragraph), “provide the user with those options which are consistent with the document grammas so that mistakes are prevented. Thus the creation menu contains only legal document elements and is calculated dynamically from the finite automaton constructed for the object class of the parent of the current object.” ... We wish to construct a menu containing the names of all classes of objects that may be inserted immediately after a_k without violating the document class syntax.” Rita does give consideration

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to relations (relationships) between the candidates and consecutive compliant elements in the document.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Per claims 1, 7, and 13:

An XML document editor stored on a computer readable medium to enable a user to add or delete an element into a working document having two consecutive elements z_i and z_{i+1}

and to convert said working document into an XML document file,

a relation between said elements z_i and z_{i+1} complying with a document type definition (DTD) of said document,

characterized in that said XML document editor automatically generates, in relation to said two consecutive elements z_i and z_{i+1} of said working document, a list of candidate third elements z to be provided to a user;

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wherein said third elements z in said list are selected such that relations between elements z_i and z and between elements z and z_{i+1} comply with said DTD after said element z is inserted between elements z_i and z_{i+1} ,

said list enabling the user to select any of the third elements and add them to the working document without affecting DTD compliance of the working document.

See Rita, page 125, last paragraph, "Rita, an editor and user interface for structured documents"

See Rita, page 129, middle paragraph, "ability to edit both text and structure (add, delete, convert) during document creation or revision"

Rita, page 131, 3rd paragraph, "Only elements which can be legally inserted before the cursor are shown in the structure menu."

Rita, page 135, 3rd paragraph, "First, a list of all of the potential document elements is created from the transitions of the FSA (finite state automata). Second, each of them is then tested to see if its inclusion causes the automaton to achieve a defined state and thus represents a valid insertion at this point in the document." Complying elements may be inserted between two existing elements.

Rita, (page 135, last paragraph), "provide the user with those options which are consistent with the document grammars so that mistakes are prevented. Thus the creation menu contains only legal document elements and is calculated dynamically from the finite automaton constructed for the object class of the parent of the current object." ... We wish to construct a menu containing the names of all classes of objects that may be inserted immediately after a_k without violating the

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document class syntax (to relations between the candidates and consecutive compliant elements in the document).”

Allowable Subject Matter

12. The following is a statement of reasons for the indication of allowable subject matter:

Regarding dependent claims, claim limitations related to Glushkov's Automaton, used in an algorithm for generating a list of selectable elements, to be presented as a list in a document editor software, said list of presented elements to comply with the document type definition, are found to be novel.

Claims 8-12 are objected to as being dependent upon a rejected base claim (claim 7), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. (Amendments to independent claims 1 and 13 are objected to for lack of support in the Specification.)

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Note:

US Patent Application Publication 2002 / 0198876 A1 to Zielinski et al.

See [0031], In step 407 of FIG. R, application 30 initiates display of a window including multiple template expressions available for user selection and inclusion in expression entry prompt element 500 (FIG. 7). FIG. 7, #725, Allowable values

US Patent Application Publication 2003 / 0033589 A1 to Reyna et al.

See [0081], formatted command structure representation may have a format for the structured data such that new data fields may be added and old ones removed, and yet, the data as whole is still readable...The formatted data file is also structured such that rules for formatting the data are included or implied so that the data can be validated (e.g., XML).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached at (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman, Primary Examiner

07/12/2007

**MARY STEELMAN
PRIMARY EXAMINER**

